

## ABSTRACT

The present invention relates to water-stress tolerance, in particular to the OSR-1 (osmotic stress resistant-1) protein, and nucleic acids encoding the OSR-1 protein. The present invention provides assays for the detection of *OSR-1*, and polymorphisms and mutations associated with water stress tolerance. In particular, the present invention relates to compositions comprising small interfering RNA duplexes (RNAi), or vectors that encode dsRNA, that inhibit expression of the *OSR-1* gene (*e.g.* by targeting OSR-1 mRNA), and methods of using these compositions to impair deleterious nematodes.

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